

# Montana Economy at a Glance

## Spotlight on Industry Clusters

The Montana Department of Labor's Research & Analysis Bureau is committed to promoting the state's economic development by providing businesses and economic planners with the most accurate and timely Labor Market Information (LMI) available. One area of economic development that has recently received a great deal of attention is the concept of "Industry Clusters." The Research and Analysis Bureau offers a wealth of information related to industry clusters, such as industry concentration, employment by industry, unemployment rates by county, wages by region, and current and projected employment growth. To help you better utilize this information, we present the following article as an introduction to this increasingly important area of Montana's economic development.

### Building a Stronger Economy

As Montanans, one of our top priorities for state government is to build a stronger and more diverse economy. The Governor's Office of Economic Opportunity has created a document entitled *Roadmap for a New Economy*. This "roadmap" functions as a plan to affect long-term improvements in our economy by making fundamental changes in the way we attract and retain businesses, and create higher paying jobs. One of the most important steps in the plan is to identify and nurture our state's "Industry Clusters." In 2002, the State of Montana took the first step in promoting cluster-based economic development by contracting with Regional Technology Strategies, Inc. (RTS) to study Montana's existing and emerging industry clusters.

### What are Industry Clusters?

Industry clusters are a geographic concentration of similar, related, or complimentary businesses linked together by a product supply chain, common markets and technologies, and worker skills. Industry clusters result from companies, including competitors, coming together or locating close to each other for their mutual advantage.

### What Are the Advantages of Clustering?

As stated by RTS, "clustering provides access to more suppliers and customized support services, to experienced and skilled labor pools, and to the inevitable transfer of knowledge that occurs when people meet and talk business. Companies that cluster can operate as a system, use their resources more efficiently, and collectively produce more than the sums of their individual outputs."

### Got Questions?

If you have a specific question you'd like to ask one of the experts in the Research and Analysis Bureau, send it in or e-mail us. Please indicate it's for the "Ask an R&A Expert Column." We'll publish those we can in this monthly publication beginning with the August 2004 issue. We're also interested in hearing feedback on our publications from our customers. Please write or e-mail us with your comments or suggestions. We'd love to hear from you.

The benefits of industry clusters, however, go beyond providing businesses with better access to resources, services, and information. Identifying and studying clusters allows economic planners to more accurately identify market strengths and imperfections, to predict system failures, and to choose economic strategies with the greatest impact. This, in turn, allows government agencies to spend public monies more strategically and efficiently.

### How Can States Promote Cluster-Based Economic Development?

While industry clusters are formed by businesses and business leaders, there are a number of things our state government can do to foster cluster-based economic development. RTS has identified eight priorities for organizing public sector resources and services, which can also be used by groups of companies forming clusters:

1. **Establish a leadership council for each cluster.**
2. **Create "one-stop cluster hubs" for each cluster.**
3. **Establish cluster-specific workforce development centers at colleges.**
4. **Designate individuals in state agencies to form cluster teams.**
5. **Create cluster-specific funds for collaborative research and innovation.**
6. **Facilitate cross-cluster matches and learning.**
7. **Aggressively recruit talent.**
8. **Strengthen entrepreneurial education and support for entrepreneurs.**

### How Can I Get More Information on Industry Clusters?

Whether you're a member of a workforce investment board or an entrepreneur looking for the ideal location for your fledgling company, involvement in the future of Montana's economy could require a working knowledge of industry clusters. There are a number of informational resources available to you depending on your specific needs.

For general information about how industry clusters function and how to make the most of them, check out RTS's "Just Clusters: Economic Development Strategies that Reach More People and Places" at <http://www.rtsinc.org/publications/just%20clusters.pdf> or "A Governor's Guide to Cluster-Based Economic Development" at <http://www.rtsinc.org/publications/NGA%20Cluster-Based%20EDC.pdf>.

For specific information on Montana's industry clusters, you can find a 52-page summary of RTS's "Montana Industry Cluster Analysis" at: <http://www.montanajobs.org/ClusterSummaryDocument.doc>

For related Labor Market Information (LMI), the Montana Department of Labor's Research & Analysis Bureau provides some of the best available at no charge. Access this information and more at [www.ourfactsyourfuture.org](http://www.ourfactsyourfuture.org) or contact one of our experts at (406) 444-2430.

### Coming Soon:

Want more information on specific industry clusters? Keep reading *Montana Economy at a Glance* for future articles about some of Montana's most prominent industry clusters.

### What is the Employment Cost Index?

The ECI is a measure of the changes in labor costs, including non-cash benefits as well as wages and salaries. It is used as an early indicator of wage inflation, and is sometimes considered more reliable than the Average Hourly Earnings (AHE), because it measures wage increases in the same jobs over time, whereas the AHE can be influenced by an overall employment shift between high- and low-wage industries and occupations. The ECI measures a different aspect of inflation than does the Consumer Price Index (CPI), which tracks inflation in day-to-day living expenses. The ECI is calculated by the U.S. Bureau of Labor Statistics, and its numbers represent nationwide, rather than localized, trends.

Why is Labor Force Information Seasonally Adjusted?

Frequent Economy at a Glance readers may have noticed that for a number of our data series, we produce two sets of estimates: the “unadjusted” and the “seasonally adjusted” numbers. This article will explain what these terms mean, and why we have to adjust our numbers according to the seasons.

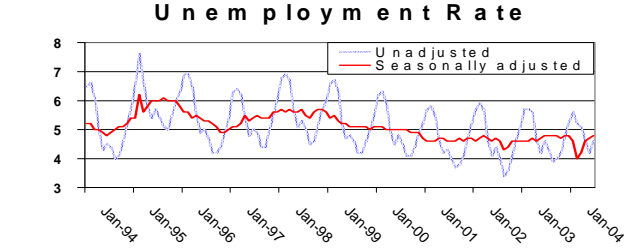
What is Seasonal Adjustment?

Seasonal adjustment is a statistical technique that removes the effects of events that follow a more or less regular pattern each year.

What Does Seasonal Adjustment Do?

It makes non-seasonal patterns easier to identify by removing seasonal fluctuations. Regular seasonal events for which data is adjusted include holidays, the beginning and end of the school year, and the weather. These events happen about the same time and have similar effects on Montana’s labor force every year. When graphed, the adjusted data series creates smoother lines, allowing for easier month-to-month comparisons. Seasonality is very important in Montana’s economy because of our long, cold winters. Employment in industries such as construction and agriculture slows down during the winter, while logging usually declines in March, April, and May due to poor road conditions. Jobs tied to tourism predictably increase in the summer. Events such as strikes and natural disasters cannot be adjusted for, since they do not occur at the same time each year.

The following graph shows the monthly employment rate in Montana from January 1994 to June 2004. Notice the regular, yearly pattern of peaks and drop-offs in the unadjusted series. Clearly, seasonal factors account for most of the month-to-month change in the unemployment rate. These factors obscure the non-seasonal movements in the unemployment rate that are often of more interest. Montana’s unemployment rate tends to be highest in January and February (winter) and lowest in September (good weather and school is back in session).



How is the Data Adjusted?

So, how are the seasonal movements removed from the data series? The seasonally adjusted data series is produced by the Bureau of Labor Statistics using a statistical method called an ARIMA model (AutoRegressive Integrated Moving Average). For each month, the ARIMA model calculates a seasonal factor, which represents how much employment and unemployment historically vary from the annual average during that month. The ARIMA model doesn’t use the exact historical average. Instead, it gives extra weight to more recent observations. The monthly employment and unemployment seasonal factors are then added to or subtracted from their respective totals before they are used to calculate the seasonally adjusted unemployment rate.

In July, for example, the unadjusted unemployment rate in Montana was 3.9 percent, but the seasonally adjusted unemployment rate was 4.3 percent. The seasonally adjusted unemployment rate is higher than the unadjusted rate because unemployment in July is normally lower than the annual average. Feel free to contact the Research and Analysis Bureau with any questions on seasonal adjustment or the seasonal patterns of specific industries in Montana.

by Brad Eldredge, Economist

MAIL OR E-MAIL?

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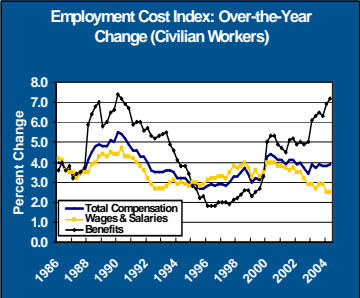
Employment Cost Index:  
Cost of Benefits hits highest  
growth rate since 1990.

Employment Cost Index - June 2004 Percent Change (seasonally adjusted)			
	March 2004 to June 2004	June 2003 to June 2004	
Civilian Workers			
Total Compensation	0.9%	3.9%	
Wages and Salaries	0.6%	2.5%	
Benefits	1.8%	7.2%	
Private Industry			
Total Compensation	1.0%	4.0%	
Wages and Salaries	0.6%	2.6%	
Benefits	1.7%	7.3%	
State and Local Government			
Total Compensation	1.1%	3.4%	
Wages and Salaries	0.7%	1.9%	
Benefits	1.9%	6.6%	

Total compensation costs for civilian workers went up 0.9% from March to June, and up 3.9% from one year ago. While these numbers represent average growth in the overall cost of employment, the cost of benefits hit their highest rate of growth in more than a decade.

The cost of benefits for civilian workers increased by 7.2% over-the-year, the fastest growth rate since 1990. Meanwhile, the growth rate for civilian wages and salaries reached its lowest point in more than twenty years. The price of benefits (health insurance in particular) has risen sharply in recent years, and many employers have had to share these costs with their workers through increased premiums, deductibles, and drug co-payments. What the ECI does not show is the percentage of wages that employees spent out-of-pocket for their company health plans.

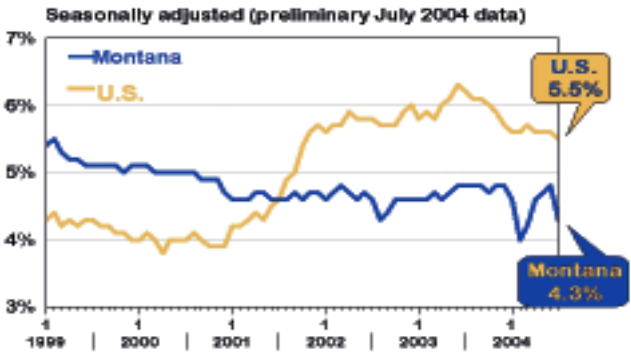
by Robert C. Marvin



What is the Employment Cost Index?  
(see page 3 to find out)

MONTANA  
Economy  
at a Glance

Unemployment

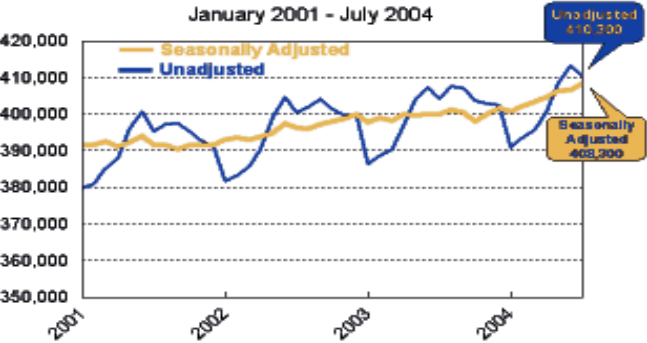


Montana’s seasonally adjusted unemployment rate continues to be lower than the U.S. rate. The state’s July unemployment rate of 4.3 percent was 1.2% lower than the nation’s.

Earnings

Average weekly earnings for workers in Montana’s private sector reached \$431.30 in July, marking an over-the-year increase of 2.2%. Compare this percent change to the 3.0% over-the-year increase in the Consumer Price Index (CPI), which is an indicator of U.S. inflation.

Nonfarm Employment Series



Montana’s seasonally-adjusted, nonagricultural payroll employment was up about 8,300 jobs (2.07 percent) over the year for July. The largest over-the-year gains were in natural resources and mining; construction; financial activities; and professional and business services.

Unemployment  
by County

Not seasonally adjusted

	July 2004*	July 2003
UNITED STATES	5.7%	6.3%
MONTANA	3.9%	4.3%
Cascade **	3.9%	4.5%
Missoula **	3.1%	3.5%
Yellowstone **	3.4%	3.7%
Beaverhead	2.5%	3.4%
Big Horn	12.3%	16.0%
Blaine	5.3%	4.6%
Broadwater	3.3%	4.0%
Carbon	3.1%	2.8%
Carter	2.2%	2.4%
Chouteau	1.9%	2.2%
Custer	3.1%	2.6%
Daniels	1.1%	1.9%
Dawson	2.7%	1.9%
Deer Lodge	7.8%	6.4%
Fallon	2.2%	2.1%
Fergus	3.6%	4.0%
Flathead	4.3%	5.2%
Gallatin	1.9%	2.1%
Garfield	1.3%	1.1%
Glacier	12.1%	12.3%
Golden Valley	6.8%	6.2%
Granite	5.2%	4.6%
Hill	4.6%	4.4%
Jefferson	4.1%	4.1%
Judith Basin	2.2%	4.1%
Lake	5.4%	6.1%
Lewis & Clark	3.6%	4.0%
Liberty	2.3%	2.3%
Lincoln	11.5%	13.0%
McCone	0.6%	1.5%
Madison	1.7%	3.0%
Meagher	4.0%	3.0%
Mineral	5.0%	7.3%
Musselshell	6.9%	6.3%
Park	2.8%	3.3%
Petroleum	2.2%	4.2%
Phillips	3.6%	4.3%
Pondera	6.2%	6.4%
Powder River	2.2%	1.3%
Powell	5.0%	5.4%
Prairie	2.7%	1.1%
Ravalli	3.9%	4.7%
Richland	3.3%	3.8%
Roosevelt	9.3%	9.1%
Rosebud	6.1%	7.0%
Sanders	5.8%	6.7%
Sheridan	1.9%	3.3%
Silver Bow	5.0%	5.2%
Stillwater	2.6%	2.9%
Sweet Grass	1.9%	2.6%
Teton	2.8%	2.8%
Toole	2.2%	3.0%
Treasure	4.4%	1.9%
Valley	3.0%	3.5%
Wheatland	2.5%	2.8%
Wibaux	2.0%	2.9%

\*July 2004 rate preliminary  
\*\* Cascade=Great Falls MSA  
Missoula= Missoula MSA  
Yellowstone=Billings MSA

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